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Policies, Policy-makers and Financial Flows: An Empirical Examination

Diogo Freitas Lopes Pereira da Costa,

Student number 496

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Professor José Tavares

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Abstract

This paper examines the response of international investors to country fiscal outcomes and the dynamics of this response according to the type of government that is in power. The issue is examined with a model that has been estimated using data from 22 OECD countries for the period of 1998 through 2008. International financial flows are highly heterogeneous and this paper finds different effects depending on the type of flow. The results of this paper suggest that an increase in government expenses increase the level of FDI and an increase in government revenues decrease the level of FDI. The evidence produced in the model also suggests that Majority governments have a negative impact on the level of the three types of capital flows.

Introduction

International capital flows have experienced an exponential growth in recent years[1]. This dramatic growth motivated several authors to examine the fundamentals of capital flows and consequently the existent literature on the theme is immense.

This surge in capital flows is often attributed to the increased integration of world financial markets (Evans, 2005). In anticipation of the benefits of capital flows, many countries reduced their capital controls, which contributed to a fast financial integration. Financial innovation and development, the rapid growth of world trade, the elimination of intra-euro exchange risk, the attractiveness of several emerging economies and the cyclical factors (periods of low interest rates) are other important determinants for global financial integration. (OECD, 2011)

[1] Especially in the last two decades, capital flows increased significantly in terms of both size and volatility. The global gross flows have moved from an average of less than 5 percent of global GDP during 1980–99 to a peak of about 20 percent by 2007. (International Monetary Fund, 2012)

Appendixes A.1, A.2 and A.3 plot the evolution of FDI, capital account, and equity flows, respectively, the graphs show that the increasing role of these flows is evident. Two important aspects are here demonstrated, first, the tremendous growth in recent years and second, the high volatility.

By analyzing the graphs of capital flows it is clear that both volatility and level of capital flows are much higher after the end of the 1980s, however these inflows have increased substantially throughout the whole sample period.

FDI net flows (Appendix A.1) remained fairly stable until the end of the 1980s then, they started to increase slowly, with a huge increase and a very high volatility after the 1990s. Capital account flows (Appendix A.2) increased throughout the whole sample, but especially after the 1980s, where there is a period of high volatility and large fluctuations in most countries.

Regarding equity flows (Appendix A.3), Belgium and Ireland, have experienced huge net inflows of portfolio equity and should be treated as outliers. So in order to have a better comprehension, I present in appendix A.4. the evolution of equity flows without these two countries. Equity flows are much more volatile than the other two, with large fluctuations since 1960, however the conclusions are in accordance with the other two capital flows, experienced an increase throughout the whole sample but with higher volatility and growth especially after the 1980s.

In the aftermath of the financial crisis, the debate over the benefits of international capital mobility has been revived, and many authors have been focused on explaining the impacts of capital flows on economic performance. Researchers have used cross-country analysis to study the connections between capital flows and essential macroeconomic variables. However, and despite the intensive discussion over the past

few years in academic circles, the conclusions about the economic benefits of global financial flows are not consensual, evidence on potential economic growth with integration on international capital markets is mixed (Kose, 2006).

The existent literature suggests a number of different reasons and channels through which the integration of international capital markets can support countries to improve their long-term economic performance. The most powerful argument in favor of international capital mobility, voiced by, among others, Fischer, Summers, Obstfeld and Rogoff, is that it facilitates an efficient global allocation of savings by channeling financial resources to their most productive uses, thereby increasing economic growth and welfare. (Alfaro, 2006)

Fischer (1997) describes the increase in capital flows as an opportunity to enhance stability among industrialized countries and concludes that the benefits of liberalizing the capital account outweigh the potential costs.

For Summers, (2000) the financial system can contribute enormously to economic development around the world, and the flow of capital across international borders can confer large benefits.

Obstfeld (1998) argues that "economic theory leaves no doubt about the potential advantages of global financial trading". For the author, the existence of international financial markets allow countries to borrow to financially invest and consequently promoting economic growth, without an increase in the domestic savings rates. The capital markets also channel savings to the most productive uses and diversify risks. Obstfeld also noted that international capital markets are able to discipline policymakers.

Rogoff (2006) noted that a recent growing literature shows that financial openness can promote not only the development of the domestic financial sector but can also impose discipline on macroeconomic policies, generate efficiency gains among domestic firms by exposing them to competition from foreign entrants, and unleash forces that result in better government and corporate governance.

In conclusion, financial integration allows economies to specialize in the production of goods for which they have a comparative advantage, either due to different factor endowments or different technologies, increased competition, facilitate the transfer of knowledge from technological leaders to technological laggards and let firms exploit increasing returns to scale both for current production and for technological development. (Rappaport, 2000)

Despite the innumerous long term benefits here presented, financial integration can pose for countries some vulnerabilities and risks in the short term that should not be underestimated.

The debate over the merits of international capital flows is a growing literature with many contributions. Some empirical work[2] has not confirmed a robust and positive impact on international capital flows for economic growth. Some researchers[3] claim that financial globalization costs can, under some circumstances, outweigh the benefits. The general arguments are that the increase of the capital flows creates higher risks of crises (particularly for developing countries), and creating incentives for excessive borrowing and is an obstacle for financial stability.

[2] See Kose et al. (2006) to an overview of the works developed over the merits of capital flows on economic growth

[3] Prasad (2006) Milesi-Ferretti et al. (1995) Kraay (1998) and Edison et al. (2002)

Especially after the crises of the 1990s[4], economists started to pay attention to the negative impacts of international capital flows. The recent financial crisis also provided a good example of the negative consequences of financial instability[5] and underlined the challenges for policymakers.

Capital flows are likely to remain an important feature of international financial markets and to remain highly volatile, therefore it is incumbent for policymakers to develop strategies to deal with risks of financial crises and to limit their destructive impact when they occur.

As I have emphasized, the most serious concern for policymakers is the volatility of capital flows, as they can, by internal or external reasons to the recipient countries, abruptly slow and thus force a painful macroeconomic and financial adjustment (Gavin, 1995). Policymakers have an important challenge to overcome, it is crucial for countries to mitigate the potential financial stability risks associated with large future international capital flows but, simultaneously, it is very important to try to retain the benefits that financial globalisation has to offer. (Speller, 2011)

Several countries have dealt with the adverse effects of such vulnerability by taking measures to limit capital flows. (OECD, 2011). The appropriate macroeconomic and structural policies play a crucial role in limiting these vulnerabilities[6]. For policymakers to best response to the challenges of international capital flows, it is crucial to analyze and understand the key drivers of the financial flows.

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[4] The economic crisis of Mexico in 1994, Asian financial crisis in 1997, Russian financial crisis in 1999 and Argentine economic crisis 1999.

5 For example, one of the most important precondition for the recent crisis was the build-up of global imbalances (large net capital flows) (Speller, 2011).

[6] For example, bad macroeconomic policies (i.e. higher government consumption or high volatility of inflation) are associated with higher volatility in capital flows (Alfaro, 2006).

John Alquist (2006) argues that investors allocate their investments according to the policies they observe, and if policies are not those they prefer, they reallocate their funds in response. Since default is a serious concern for investors, countries that present more fragile macroeconomic conditions will be more susceptible to the volatility of international markets. In this way, the response of international investors to fiscal policy signals and outcomes is crucial for the stability of the financial system.

In the context of the present financial crisis, one of the major challenges for OECD countries is fiscal consolidation, as fiscal policy is not sustainable and countries need with urgency to reduce the large public deficits and debts that they have accumulated over the past years.

This paper examines the impact of fiscal policy outcomes on the level of the three types of international capital flows for 22 OECD countries[7] for the period of 1998 to 2008. The objective of this study is to assess the impact on capital flows from changes in the fiscal variables and additionally, determine the reaction of international investors according to the type of cabinet system in power.

The focus of this paper is to assess two major questions: first, do the fiscal policy outcome affect the allocation of international capital flows? And second, how do international investors respond to the same fiscal policy undertaken by different actors?

The first of the questions is useful to examine the role of fiscal policy over international capital flows – if fluctuations over capital flows could be explained by changes in government expenses or revenues. The second question allows to measure the relevance

[7] Australia, Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom, United States, New Zealand and Canada

of government ideology based on the reaction of international investors – if capital flows respond differently according to the type of cabinet system that is in power.

Data and Summary Statistics

The data relies on two main different sources, the OECD Economic Outlook No 86 - December 2009 and World Development Indicators form World Bank.

Although I have data available from 1960, the regressions of the model will be for the period after 1998, because the data available for fiscal and control variables are more consistent and reliable after that period, and also because, as I mentioned in the last section, it is the period where volatility and level of capital flows were higher.

Appendix B presents a description of the variables, grouped in categories. The international capital flows were divided in: foreign direct investment, equity flows and capital account and the data was collected from the World Development Indicators.

As previously referred to, the existent literature on the determinants of capital flows is immense. Based on that literature, I used three control variables: GDP per capita, inflation and real growth rate of GDP per capita. The variables are detailed in Appendix B and were also collected from the World Development Indicators.

The political variables data were also collected from the World Development Indicators and fiscal variables data is from the OECD Economic Outlook No 86 - December 2009, both are detailed in Appendix B.

Although this analysis is focused on the period after 1998, I present in Appendix C.1 summary statistics for the different variables from 1960 to 2008 and in Appendix C.2 the summary statistics for the period of regression analysis (after 1998). All the three types of capital flows (FDI, equity and capital account) are expressed in percentage of GDP. As expected, by comparing the two different tables, the volatility and level of

capital flows[8] are higher in the more recent years. Comparing the control variables between the two periods, it is observable that the real per capita growth and inflation were lower in the 1998-2008 period.

Regarding the political variables, the usual government is from a Right ideology, Majority system and in a Coalition.

Fiscal variables values are not very different from the two sub-periods, both expenses and revenues are, on average, moderately higher in the second period, but the budget deficits are, on average, lower.

Finally, regarding the interaction[9] of the fiscal variables with the cabinet ideology, Right-wing governments, in general, have lower revenues and lower expenditures, however they run higher deficits than the Left-wing governments and Majority and Single Party governments also run higher deficits than minorities or Coalitions

Model

The first model of the analysis assess the reactions of all three types of capital flows to the three control variables and two fiscal variables, by running cross-country regressions for the period 1998-2008. The model can be expressed by:

$$f_{i,t} = \alpha_i + \lambda_\pi \pi_{i,t} + \sigma_g g_{i,t} + \chi_m m_{i,t} + \gamma_r (rev)_{i,t} + \gamma_e (exp)_{i,t}$$

Where $f_{i,t}$ represent a specific capital flow (FDI net, equity flows in and capital account) divided by nominal GDP, for country i in period t. The variables $\pi_{i,t}$ $g_{i,t}$and $m_{i,t}$ represent, respectively, CPI inflation, real per capita GDP growth and GDP per

[8] Using Appendix C.1 and C.2 and by looking to the standard deviation and mean of the three type of capital flows we can see that both present higher values for the period of 1998-2008.

[9] The interaction between the variables is calculated by the multiplication of the dummy variable regarding the ideology of cabinet system and the level of revenue or expense in the same period.

capita , for country i in period t. The variables $\gamma_r(rev)_{i,t}$ and $\gamma_e(exp)_{i,t}$ represent respectively, the government revenues and expenditures for country i in period t.

I measure the economic development of an economy as the real GDP per capita, the national economic performance as yearly growth in real GDP per capita and I also take into consideration the role of inflation on the fluctuations of capital flows. The control variables are present to ensure that the relationship between government expenditures and revenues and capital flows is not determined by the better economic performance of some countries. The three different capital flows are heterogeneous and therefore it is not expected that the significance of control variables should be equal in the three types of capital flows.

It is not included in the model an extensive set of control variables since the main objective is not to find determinants of capital flows but rather to assess if investors react and how they react to different fiscal outcomes. Furthermore, I will also evaluate if this reaction is different according to the type of government in power.

In order to assess the reaction of investor with the different type of cabinet system in power I build a second model where I include the interactions of the fiscal variables with the cabinet system data and the type of cabinet; a model with all sets of variables. The idea is to create a framework to compare the reaction of international investors to the fiscal policy variables for the different type of capital flows, and distinguish between the effects of fiscal performance on capital flows depending the type of cabinet system in power. Regarding what was explained, the model is:

$$f_{i,t} = \alpha_i + \lambda_\pi \pi_{i,t} + \sigma_g g_{i,t} + \chi_m m_{i,t} + \gamma_r(rev)_{i,t} + \gamma_e(exp)_{i,t} +$$

$$\theta_{re}\left(\text{Right}_{exp}\right)_{i,t} + \theta_{le}\left(\text{Left}_{exp}\right)_{i,t} + \theta_{me}\left(\text{maj}_{exp}\right)_{i,t} + \theta_{ce}\left(\text{coal}_{exp}\right)_{i,t} +$$

$$\omega_{rr}(\text{Right}_{rev})_{i,t} + \omega_{lr}(\text{Left}_{rev})_{i,t} + \omega_{mr}(\text{maj}_{rev})_{i,t} + \omega_{cr}(\text{coal}_{rev})_{i,t} +$$

$$\beta_l(\text{Left})_{i,t} + \beta_r(\text{Right})_{i,t} + \beta_m(\text{maj})_{i,t} + \beta_c(\text{Coalition})_{i,t} + \varepsilon_{i,t}$$

Where $f_{i,t}$ represent a specific capital flow (FDI net, equity flows in and capital account) divided by nominal GDP, for country i in period t. The variables $\pi_{i,t}$ $g_{i,t}$and $m_{i,t}$ represent, respectively, CPI inflation, real per capita GDP growth and GDP per capita , for country i in period t. The rest of the model is composed by fiscal variables (expenses and revenues), political variables (Right, Left, Majority and Coalition) and interaction between the two (Right/Left expenses, Right/Left revenues, Majority expenses/revenues and Coalition expenses/revenues).

As previously referred to, one of the main characteristics of international capital flows is that they are very heterogeneous and I expect different conclusions from each type of flow.

I expect GDP per capita to be correlated with three different type of flows since it is one of the most accepted control variable in the literature. In general, net flows of FDI are negative for more developed countries and positive for less developed, which means that lower GDP per capita values imply higher levels of FDI (negative correlation). I suspect that capital account also presents a negative relationship with GDP per capita, but on the other hand equity flows are likely to be positively correlated with the development of a country, more developed countries should receive more equity flows than less developed.

Regarding inflation and real per capita GDP growth, I expect them to be correlated with capital account and equity flows. These two are the most volatile type of flows and since they also have shorter time horizons than FDI, it is expectable that investors decisions react more to any source of economic instability. In particular higher economic growth is associated with larger international capital flows.

In the next section, I will present and analyze the results of the model both by fixed effects and linear regression.

Results

Table 1 presents the results of the first model estimation with robust standard errors. Hausman tests results indicates that the best methodology to be used is fixed effects regression, I choose to focus the analysis on this method given that they always produce consistent estimators, even when not the most efficient. This method control for the stable characteristics of individual and therefore eliminates potentially sources of bias[10]. However I also present the results under linear regression.

Fixed effects regression results seem to capture better the effects of fiscal policy on the change of capital flows, especially concerning government expenses. In the fixed effects regressions, all three types of flows respond significantly to the change on government expenses. To an increase in government spending, capital account and equity flows respond negatively with a decrease in flows, but on the other hand, foreign direct investment respond positively to an increase in expenditures with an increase in flows.

[10] The signs under fixed effects and linear regression persist for the Majority of the cases, the only difference between the two methods is on the significance of some variables.

Government revenues are not significant to any type of financial flow, neither trough linear regression or fixed effects.

Regarding the three control variables, under the fixed effects regression inflation is relevant for FDI and GDP per capita is significant for capital account and for equity flows.

In the linear regression model, GDP per capita is relevant in explaining FDI and capital account. Inflation is also significant for capital account flows and the only determinant of equity flows is real per capita GDP growth. The real per capita GDP growth have a significant and positive impact on equity flows, countries with higher growth rate have higher inflow of equity flows.

Table 1 - Explaining the fiscal variables impact on capital flows, 1998 -2008

Dependent Variable	**FDI**	**Capital account**	**Equity**	**FDI**	**Capital Account**	**Equity**
	Linear Regression			**Fixed Effects**		
	(1)	(2)	(3)	(4)	(5)	(6)
Inflation (CPI)	0.169	**0.091*** **	0.492	**0.535** **	0.032	0.506
	(0.594)	**(0.025)**	(0.534)	**(0.224)**	(0.027)	(0.542)
Real per capita GDP growth	-0.001	0.007	**1.206*** **	0.295	0.007	0.1007
	(0.219)	(0.018)	**(0.423)**	(0.206)	(0.017)	(0.226)
GDP per capita	**-0.000** **	**-0.000*** **	-0.000	-0.000	**-0.000** **	**-0.000** **
	(0.000)	**(0.000)**	(0.000)	(0.000)	**(0.000)**	**(0.000)**
Expenses	0.054	-0.003	**-0.270***	**0.524** **	**-0.025***	**-0.737** **
	(0.172)	(0.114)	**(0.164)**	**(0.210)**	**(0.014)**	**(0.321)**
Revenues	(-0.018)	0.004	-0.115	-0.278	0.001	0.3618
	(0.130)	(0.009)	(0.138)	(0.234)	(0.014)	(0.232)
No. Observations	255	255	256	255	255	256

Notes: Robust standard errors are here presented in parenthesis. * Significant at 10% level ** Significant at 5% level *** Significant at 1% level.

The second model of our analysis is presented in Table 2, using, again, OLS estimation with robust standard errors and fixed effects estimation with robust standard errors.

Table 2 - Explaining the fiscal variables, political and interaction variables impact on capital flows, 1998 -2008

Dependent Variable	**FDI**	**Capital account**	**Equity**	**FDI**	**Capital account**	**Equity**
	Linear Regression			**Fixed Effects**		
	(1)	(2)	(3)	(4)	(5)	(6)
Inflation (CPI)	0.417	**0.1076*** **	**1.834** **	0.8862	-0.0110	1.1039
	(0.298)	**(0.024)**	**(0 .794)**	(0.679)	(0.0263)	(0.7124)
Real per capita GDP growth	0.007	**0.0466***	**2.169*** **	0.2731	0.0109	**0.7411** **
	(0.277)	**(0.0241)**	**(0.539)**	(0.479)	(0.0212)	**(0.3315)**
GDP per capita	**-0.132*** **	**-0.021*** **	0.029	**-0.163** **	**-0.0095** **	**-0.226** **
	(0.0329)	**(0.0037)**	(0.0769)	**(0 .0615)**	**(0.0035)**	**(0.0839)**
Expenses	**1.384*** **	0.0127	-0.9296	**1.814*** **	0.0194	-0.5854
	(0.391)	(0.027)	(0.855)	**(0.411)**	(0.0205)	(0.3737)
Right Expenses	**-1.511*** **	0.0213	-0.243	**-1.470*** **	**-0.0341** **	-0.3499
	(0.3667)	(0.021)	(0.845)	**(0.3466)**	**(0.0139)**	(0.4993)
Left Expenses	**-1.508*** **	-0.0029	0.9186	**-1.667*** **	**-0.0546** **	-0.1904
	(0.3697)	(0.022)	(0.868)	**(0.3882)**	**(0.0197)**	(0.3624)
Majority Expenses	**0.583** **	**0.0421** **	**0.898***	**0.7173***	**0.0359***	0.3876
	(0.231)	**(0.019)**	**(0.5097)**	**(0.3591)**	**(0.0193)**	(0.2851)
Coalition Expenses	**-0.377** **	**-0.0744*** **	-0.297	**-0.689*** **	**-0.0396***	-0.7286
	(0.166)	**0.022)**	(0.3515)	**(0.3610)**	**(0.0224)**	(0.4556)
Revenues	**-1.345*** **	-0.015	1.067	**-2.099*** **	-0.0191	**0.6664***
	(0.3604)	(0.026)	(0.743)	**(0.5887)**	(0.0308)	**(0.3503)**
Right Revenues	**1.225*** **	-0.0234	-0.898	**1.438*** **	0.0105	-0.2711
	(0.3502)	(0.023)	(0.0739)	**(0.3667)**	(0.017)	(0.2770)
Left Revenues	**1.551*** **	-0.0149	-1.076	**1.674*** **	0.0176	-0.3858
	(0.3512)	(0.024)	(0.761)	**(0.3975)**	(0.016)	(0.2506)
Majority Revenues	**-0.369*** **	-0.0147	0.008	-0.1799	0.0018	-0.0001
	(0.1409)	(0.01)	(0.270)	(0.2108)	(0.009)	(0.3129)
Coalition Revenues	**0.3767*** **	**0.0754*** **	-0.238	0.2636	0.0108	0.4195
	(0.1383)	**(0.019)**	(0.3087)	(0.2032)	(0.009)	(0.2484)
Right Mode	11.12	0.4189	**55.42*** **	-0.1989	**1.098** **	**30.830** **
	(7.134)	(0.629)	**(13.687)**	(9.945)	**(0.5236)**	**(13.069)**
Left Mode	-3.7931	1.098	9.050	-1.6211	**1.679***	**26.933*** **
	(7.876)	(0.704)	(11.1539)	0.19	**(0.8249)**	**(12.971)**
Majority Mode	**-11.72 ***	**-1.194** **	**-42.735** **	**-23.59** **	**-1.673** **	**-17.014** **
	(6.585)	**(0.468)**	**(18.179)**	**(9.584)**	**(.6860)**	**(7.2896)**
Coalition Mode	0.9763	-0.324	**29.067*** **	19.59	1.407	13.973
	(5.292)	(0.562)	**(9.1465)**	(11.81)	(1.025)	(15.643)
No. Observations	235	235	236	235	235	236

Notes: Robust standard errors are here presented in parenthesis. * Significant at 10% level ** Significant at 5% level *** Significant at 1% level.

The analysis starts considering FDI as the dependent variable. Table 2 (4) plots the OLS estimation of FDI net flows between 1998 and 2008 under fixed effects. As theory predicts, the initial level of development is determinant for FDI, the initial GDP per

capital level is negatively correlated and significant with a 1% level of significance. Meaning that, a more developed country is, on average, a lower recipient of FDI flows than a less developed country. The inflation level and real per capita GDP growth appear to have no significance on explaining the level FDI net flows.

The coefficient on the variables Expenses and Revenues in Table 2 estimate the effect of an increase in each of these variables by a cabinet that is ideologically Center, controls a Minority in parliament, and is made up of a Single Party – that is, displays the political characteristics that are not explicitly interacted with the fiscal variables. In Table 3 below we want to compute how different political characteristics affect the marginal effect of fiscal changes on flows.

Table 3 - Significance of interaction variables

Dependent Variable	FDI	Capital Account	Equity flows
Expenses	**1.814**	0.0194	-0.5854
	(19.45)* **	(0.90)	(2.45)
Right expenses	0.344	-0.0147	**-0.9353**
	(0.74)	(0.88)	**(5.05)** **
Left expenses	0.147	**-0.0352**	**-0.7758**
	0.23	**(3.70)** **	**(11.02)*** **
Majority expenses	**2.5313**	**0.0553**	-0.1978
	(29.97)* **	**(6.10)** **	(0.30)
Coalition expenses	**1.125**	-0.0202	**-1.314**
	(5.61) **	(0.84)	**14.65*** **
Revenues	**-2.099**	0.0003	**0.6664**
	(3.00)* **	(0.38)	**(3.62)**
Right revenues	-0.661	0.0299	**0.3953**
	(0.1835)	(0.21)	**(3.62)***
Left revenues	-0.425	-0.0015	0.2806
	(1.89)	(0.00)	(0.87)
Majority revenues	**-2.2789**	-0.0173	0.6663
	(12.54)* **	(0.37)	(2.67)
Coalition revenues	**-1.8354**	-0.0083	**1.0859**
	(9.79)* **	(0.07)	**(8.72)*** **

Notes: In parenthesis it is the F-Statistic * Significant at 10% level ** Significant at 5% level *** Significant at 1% level.

Government expenses is positively and significantly correlated with FDI flows. The tests show that this positive effect of government expenses on FDI flows is not independent of the ideological bent of the cabinet. In case of a Center government the results are significant and positive correlated, but the effects of a Right or Left wing cabinet are not significant[11].

Majority and Coalition governments expenditure are statistically significant for FDI, an increase in the level of expenditures by this type of governments has a positive effect, and increase the level of FDI to the host country.

Concerning government revenues, an increase in revenues is negatively correlated with the level of FDI, but, again, the response is null for Right and Left wing cabinets, and statistically significant only in the case of Center cabinets. Majority and Coalition government have statistical significance, an increase in revenues undertaken by this type of cabinet having a negative impact on level terms for FDI.

The type of cabinet has few relevance for FDI[12], the only significant variable is Majority governments and only at a 10% significance level. FDI flows react negatively to a Majority government and consequently there is a reduction in the level of flows.

Table 2 (5) replicates our baseline model to the capital account flows. The only control variable with significant impact on capital account flows is GDP per capita. I find evidence for a negative relation the initial level of GDP per capita and capital flows. Higher level of development induces lower level of flows - a more developed country is, on average, a lower recipient of capital account flows.

[11] By analyzing the table 3 where I compute the significance test for the Right Expenses (Right_expenses + Expenses = 0) and Left Expenses (Left_expenses + Expenses = 0), in both cases I do not reject the null hypothesis.
[12] The results are present in Table 2

Regarding fiscal variables, the results reveal that there is not a very significant impact of these variables on capital account flows. The relation with government expenditures is only significant for Left and Majority governments, all the other interaction variables appear to be not statistically significant. Left governments increase in expenditures reduce the level of capital account flows and Majority governments increase in expenditures increase the level of capital account flows. Regarding government revenues, there is not any statistical significant variable.

Concerning the type of cabinet in power[13], a Majority cabinet has a negative effect on this type of flows, foreign investors tend to decrease the level of flows when the government in power is a Majority. There are also results dependent on the ideology of the cabinet system, Right and Left wing governments have a statistical significant and positive impact on attracting capital account flows.

The third dependent variable is equity flows, the most volatile flow[14]. Real per capita GDP growth and the GDP per capita produces a statistically significant impact on explaining equity flows. Again, a more developed country receive, on average less equity flows, and real per capita GDP growth is positively related - an increase in the growth rate increase the level of flows.

Concerning the results on fiscal variables, equity flows respond significantly to an increase in expenses by a Right or Left government, but not for a Center government. Additionally, a Right government also produces effects when they increase revenues. A Coalition government produces effects, both by increasing expenses or revenues, equity flows decrease with an increase in expenses and increase with an increase in revenues.

[13] The results are present in Table 2
[14] Recall Appendix A and C for the evolution and summary statistics of this flow.

Equity flows have similar results to Capital account regarding the cabinet system. There is a positive correlation between both Right and Left wing governments, meaning this governments are more likely to receive equity flows than a Center wing government and there is a negative and significant impact of Majority governments[15], meaning that capital flows respond with a decrease in level terms when the government is a Majority.

Conclusions

International capital flows have increased dramatically over the past recent years and this growth motivated several authors to explore the fundamentals of capital flows in more depth. A huge piece of literature was developed on the topic and despite the conclusions about the merits of capital flows are not consensual, financial integration is associated with better economic performance.

The volatility of capital flows pose several challenges for policymakers, it is incumbent for policymakers to deal with the risks of financial crises and limit their destructive impact when they occur, but on the other hand is also very important that they can retain the large benefits that financial globalisation has to offer.

The allocation of international investments is highly associated with the macroeconomic policies observed, and therefore countries with fragile economic positions are more susceptible to suffer from an abrupt reduce on capital flows which will implicate an a painful macroeconomic adjustment. In a context of a financial crisis and consequently, several fiscal adjustments, the dynamics of fiscal policy with capital flows is a serious concern of policymakers.

[15] The result is consistent with the other two type of flows where I find negative and significant correlation between the capital flow and a Majority government.

This paper examines the impact of fiscal policy outcomes in the level of three type of flows for 22 OECD countries for the period of 1998 to 2008. The two major objectives of this paper are to analyze empirically the role of fiscal policy over the level of international capital flows and investigate the dynamics of international investors response according to the type of government in power. This paper investigates both the fiscal outcomes and political factors that influence the level of international capital flows.

The analysis over the dynamics of fiscal policy on level of international flows illustrates some common elements, but several dimensions of heterogeneity between the three types of capital flows.

With regard to the two questions raised in the introduction, the empirical findings produce the following answers:

1) Do the fiscal policy outcome affect the allocation of international capital flows?

The empirical findings indicate that, under fixed effects regression, government expenses are a statistical significant determinant of the three types of capital flows, although the impacts are different according to the type of flow. Foreign direct investment has a positive relationship with government expenses - if governments increase their expenditures, FDI will increase in level terms. The impact on capital account and equity flows is negative, which means that an increase in government expenditures decrease the level of capital account flows and equity flows. Government revenues results are not statistical significant for any type of capital flow.

2) How do international investors respond to the same fiscal policy undertaken by different actors?

The results shows that, government expenses are positively related and revenues negatively related with the level of FDI. Meaning that, when a government increase their expenses or decrease their revenues, FDI net flows tend to increase, but with different results for the different cabinet system.

In case of a Center government the results are significant and positive correlated, but the effects of a Right or Left wing cabinet are not significant. Majority and Coalition governments expenditure are also statistical significant and an increase in expenditures increase the level of FDI. Concerning government revenues, the tests shows that a Center government increase in revenues have a negative impact, but no impact for a Right or Left wing government increase in revenues. Majority and Coalition government increase in revenues have a negative impact on level terms for FDI.

Regarding capital account, an increase in expenditures by a Left government is negatively related and an increase in expenditures by a Majority government is positively related.

Right and Left wing governments have a negative impact on equity flows by an increase in government expenditures and a positive impact with an increase in revenues.

Moreover, majorities tend to prejudice the level of the three types of flows, and Right and Left wing governments attract, on average, more capital account and equity flows than Center governments. GDP per capita is a significant determinant of the level of the three type of capital flows, and more developed countries have, on average, lower level of capital flows. Moreover, real per capita GDP growth is also a significant determinants of equity flows, with a positive correlation, meaning that a country with an higher growth rate, receives, on average, more equity flows.

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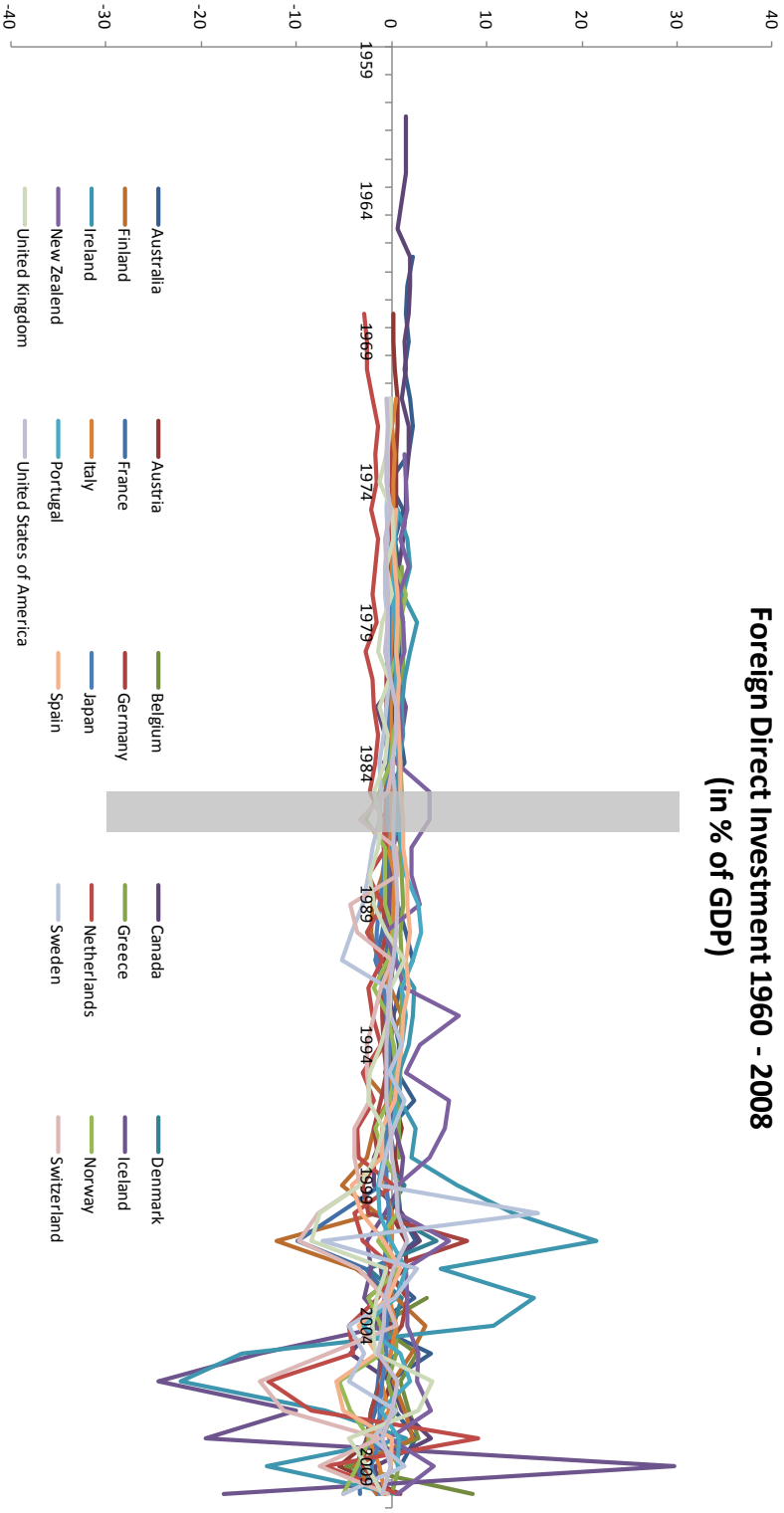
Policies, Policy-makers and Financial Flows: An Empirical Examination

APPENDIX

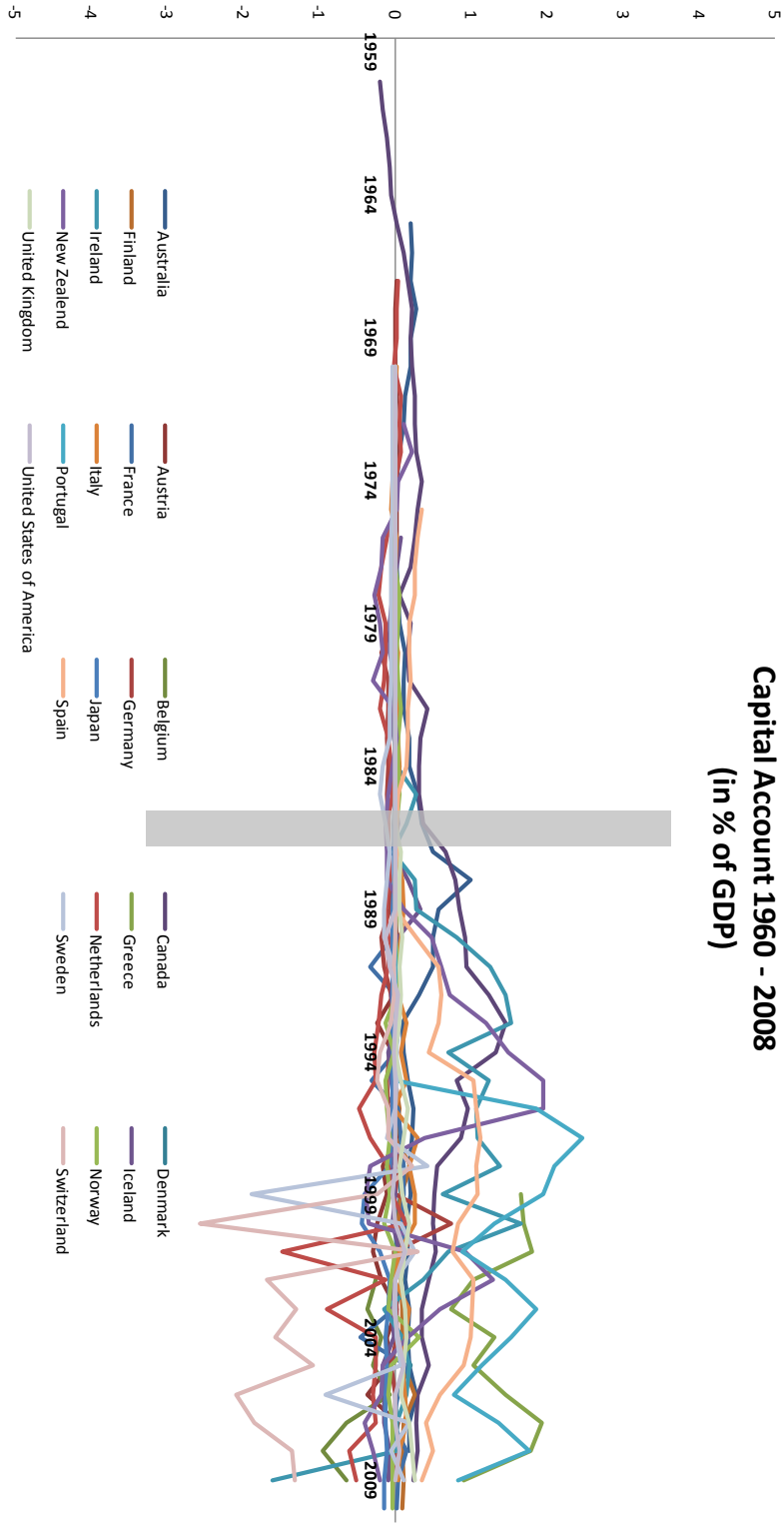
Diogo Freitas Lopes Pereira da Costa,

Student number 496

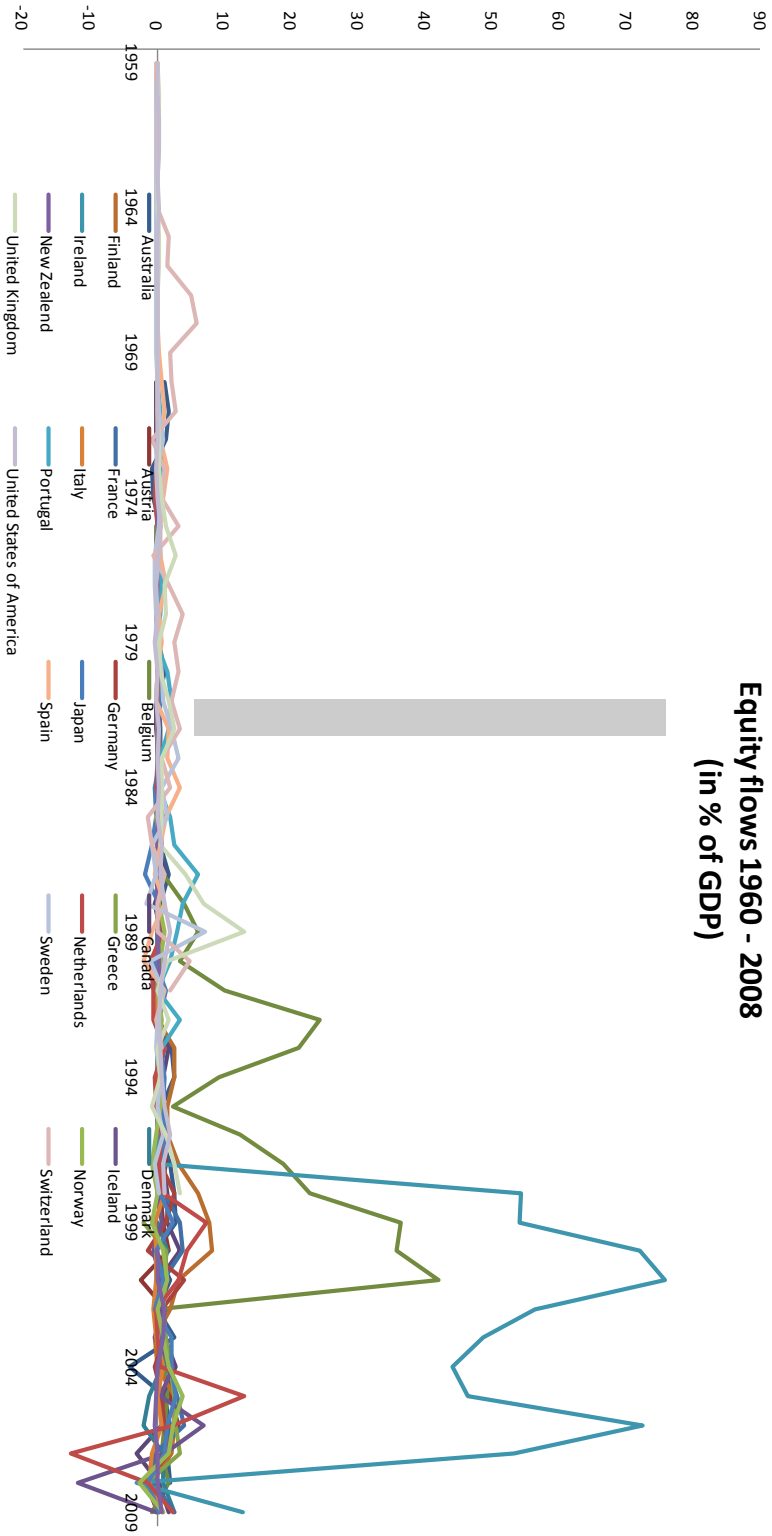
Appendix A.1 - Foreign Direct Investment 1960 - 2008



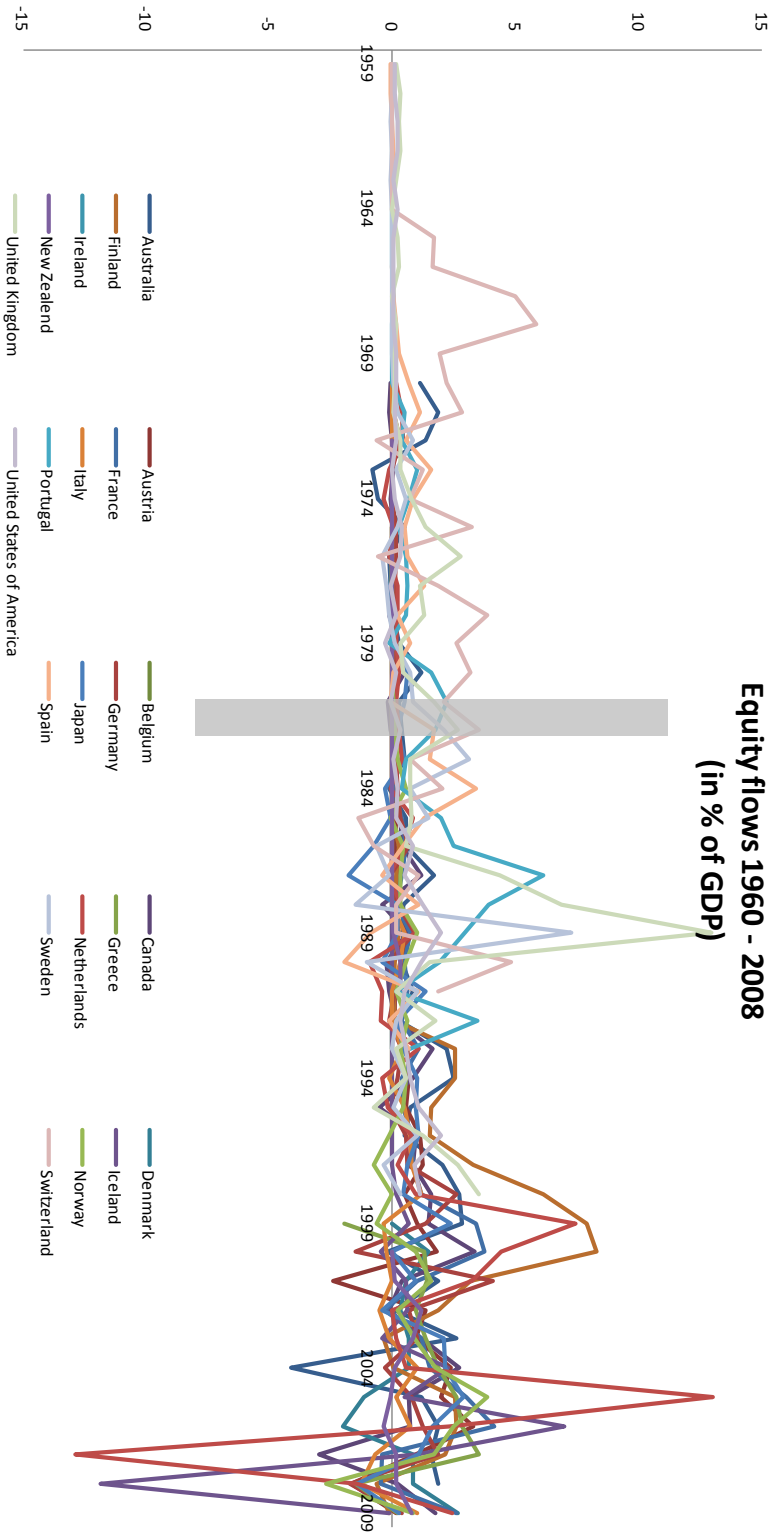
Appendix A.2 - Capital Account 1960 - 2008



Appendix A.3 - Equity Flows 1960 - 2008



Appendix A.4 - Equity Flows 1960 - 2008 (without Belgium and Ireland)



Appendix B - Variable description

International capital flows	
FDI net (p.p.)	Foreign direct investment is net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows total net FDI in the reporting economy from foreign sources less net FDI by the reporting economy to other economies. Data are in GDP percentage points.
Capital account (p.p.)	Net capital account includes government debt forgiveness, investment grants in cash or in kind by a government entity, and taxes on capital transfers. Also included are migrants' capital transfers and debt forgiveness and investment grants by nongovernmental entities. Data is in GDP percentage points.
Equity in (p.p.)	Portfolio equity includes net inflows from equity securities other than those recorded as direct investment and including shares, stocks, depository receipts (American or global), and direct purchases of shares in local stock markets by foreign investors. Data is in GDP percentage points.
Controls	
Real per capita GDP growth (p.p.)	Annual growth of the gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data is in percentage points.
Inflation CPI (p.p.)	Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. The Laspeyres formula is generally used. Data is in percentage points.
GDP per capita	GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data is in thousands of U.S. dollars.
Political	
Left_mode	Dummy variable identifying country/year pairs in which the cabinet ideology most days "in office" is left, in a given country/year observation.
Center_mode	Dummy variable identifying country/year pairs in which the cabinet ideology most days "in office" is center, in a given country/year observation.

Right_mode	Dummy variable identifying country/year pairs in which the cabinet ideology most days "in office" is right, in a given country/year observation.
Majority_mode	Dummy variable identifying country/year pairs in which the cabinet parliamentary most days "in office" is majority, in a given country/year observation.
Coalition_mode	Dummy variable identifying country/year pairs in which the cabinet quantitative party composition most days "in office" is coalition, in a given country/year observation.
Fiscal Variables	
Total disbursements	Net lending is the net amount a unit or a sector has available to finance, directly or indirectly, other units or other sectors. Government net lending is general government current tax and non-tax receipts less general government total outlays
Total outlays	The figures for total outlays consist of current outlays plus capital outlays. Current outlays are the sum of current consumption, transfer payments, subsidies and property income paid (including interest payments). Data refer to the general government sector, which is a consolidation of accounts for the central, state and local government plus social security.
Government net lending	Tax receipts of the government sector are defined as the sum of direct taxes on household and business sectors, indirect taxes and social security contributions. Non-tax receipts include operating surpluses, property income, user charges and fees, other current and capital transfers received by the general government. Data refer to the general government sector, which is a consolidation of accounts for the central, state and local government plus social security.

Appendix C.1 - Summary Statistics (1960-2008)

International Capital flows					
Variable name	**Observations**	**Mean**	**St. Dev.**	**Min.**	**Max.**
FDI net (p.p.)	798	-0.33	3.2	-24.47	29.75
Capital account (p.p.)	804	0.09	0.45	-2.58	2.46
Equity in (p.p.)	789	1.6	7.25	-12.85	75.83
Real per capita GDP growth (p.p.)	1050	2.45	2.75	-8.45	13.27
Inflation CPI (p.p.)	1045	6.02	6.8	-4.48	84.22
GDP per capita	1085	15.94	14.35	0.36	94.57
Time in government					
Variable name	**Observations**	**Mean**	**St. Dev.**	**Min.**	**Max.**
Left	1038	0.25	0.43	0	1
Right	1038	0.57	0.5	0	1
Center	1038	0.18	0.39	0	1
Minority	1038	0.26	0.44	0	1
Majority	1038	0.74	0.44	0	1
Single Party	1038	0.45	0.5	0	1
Coalition	1038	0.55	0.5	0	1
Fiscal Variables					
Variable name	**Observations**	**Mean**	**St. Dev.**	**Min.**	**Max.**
Expenditure	902	42.79	9.64	18.17	70.93
Revenue	902	40.78	9.37	20.2	63.47
Budget Deficit	923	-1.97	4.35	-16.01	18.77
Expenditures					
Variable name	**Observations**	**Mean**	**St. Dev.**	**Min.**	**Max.**
Right	475	41.04	9.73	18.17	70.92
Left	226	45.69	7.59	26.76	65.3
Center	178	44.81	8.72	28.44	64.6
Minority	256	44.32	9.70	22.25	70.93
Majority	624	42.44	9.03	18.17	64.6
Single Party	416	40.88	8.94	18.17	65.3
Coalition	464	44.87	9.15	22.42	70.93
Revenues					
Variable name	**Observations**	**Mean**	**St. Dev.**	**Min.**	**Max.**
Right	475	38.48	8.92	20.2	60.92
Left	226	44.76	8.36	25.16	63.47
Center	178	43.62	7.97	27.72	56.93
Minority	256	43.54	10.26	23.37	63.47
Majority	624	40.13	8.35	20.2	59.07
Single Party	416	38.72	9.06	20.2	63.47
Coalition	464	43.27	8.54	22.37	60.92
Budget Deficit					
Variable name	**Observations**	**Mean**	**St. Dev.**	**Min.**	**Max.**
Right	489	-2.51	4.15	-14.52	15.09
Left	233	-0.88	4.67	-12.14	18.77
Center	178	-1.2	4	-16.01	7.82
Minority	262	-0.78	4.61	-14.03	15.37
Majority	639	-2.27	4.12	-16.01	18.77
Single Party	437	-2.08	3.86	-14.03	15.37
Coalition	464	-1.6	4.7	-16.09	18.77

Appendix C.2 - Summary Statistics (1998-2008)

International Capital flows					
Variable name	**Observations**	**Mean**	**St. Dev.**	**Min.**	**Max.**
FDI net (p.p.)	258	-1.06	5.23	-24.47	29.75
Capital account (p.p.)	258	0.11	0.65	-2.58	2.01
Equity in (p.p.)	259	3.86	12.01	-12.85	75.83
Real per capita GDP growth (p.p.)	261	1.5	2.51	-8.45	9.41
Inflation CPI (p.p.)	264	2.2	1.65	-4.48	12.67
GDP per capita	264	33.8	13.11	11.44	94.57
Time in government					
Variable name	**Observations**	**Mean**	**St. Dev.**	**Min.**	**Max.**
Left	242	0.31	0.46	0	1
Right	242	0.53	0.5	0	1
Center	242	0.17	0.37	0	1
Minority	242	0.28	0.45	0	1
Majority	242	0.72	0.45	0	1
Single Party	242	0.33	0.47	0	1
Coalition	242	0.67	0.47	0	1
Fiscal Variables					
Variable name	**Observations**	**Mean**	**St. Dev.**	**Min.**	**Max.**
Expenditure	264	44.52	6.7	31.33	61.18
Revenue	264	43.9	7.56	30.33	62.86
Budget Deficit	264	-0.63	4.65	-15.66	18.77
Expenditures					
Variable name	**Observations**	**Mean**	**St. Dev.**	**Min.**	**Max.**
Right	128	42.11	6.57	31.33	54.7
Left	74	45.81	6.2	34.35	61.2
Center	40	47.63	4.92	33.88	57.82
Minority	67	44.8	7.7	31.33	61.2
Majority	175	43.91	6.11	32.02	57.82
Single Party	81	42.98	6.05	33.88	61.18
Coalition	161	44.75	6.78	31.33	57.82
Revenues					
Variable name	**Observations**	**Mean**	**St. Dev.**	**Min.**	**Max.**
Right	128	41.44	7.5	30.53	57.5
Left	74	46.17	7.2	35.3	62.86
Center	40	48.16	4.96	34.88	55.2
Minority	67	46.71	8.91	31.40	62.86
Majority	175	42.96	6.71	30.53	59.07
Single Party	81	41.7	7.28	31.30	62.86
Coalition	161	45.15	7.45	30.53	59.07
Budget Deficit					
Variable name	**Observations**	**Mean**	**St. Dev.**	**Min.**	**Max.**
Right	128	-0.67	3.84	-11.2	15.09
Left	74	0.36	5.31	-6.05	18.77
Center	40	0.54	3.26	-13.56	6.9
Minority	67	1.92	4.32	-7.64	15.37
Majority	175	-0.95	4	-13.56	18.77
Single Party	81	-1.28	3.85	-11.16	15.37
Coalition	161	0.41	4.39	-13.56	18.77